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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,200	09/27/2000	Gregory L. Slaughter	5181-57500	8325

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EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/672,200

Applicant(s)

SLAUGHTER ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 03/02/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,13-15,17,18,20-26,28-31,33-36,51,52,54-57,59 and 73-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-11,15,17,18,21-26,28,31,33-36,51,52,54-57 and 73-76,79 is/are rejected.
- 7) ☒ Claim(s) 4-6,11,13,14,18,20,29,30,59,77,78 and 80 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1, 2, 4-11, 13-15, 17-18, 20-26, 28-30, 31, 33-36, 51-52, 54-57, 59, and 73-80 are presented for the examination. Claims 3, 12, 16, 19, 27, 32, 37-50, 53, 58, 60-72 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-2, 7-11, 17-18, 21-26, 33, 34, 51, 52, 56, 57** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al (U S Pat. 5,218,699) in view of Monday (6,480,860 B1).

3. As to **claim 1**, Brandle teaches the invention substantially as claimed including: a method for remotely invoking functions (remote procedure calls) in a distributed computing environment, comprising:

a client (application 100) generating a message (remote procedure call), wherein the message includes information representing a computer programming language (high level language, col. 3, lines 37-39) method call (procedure block 52);

the client sending the message to a service (remote router application 118), wherein the service is configured to perform functions on behalf of the client (execute service procedures 126); and

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the service performing a function on behalf of the client in accordance with the information representing the computer programming language method call included in the message (execute service procedure 170, 172, See col. 7, line 4 - col. 8, line 4; fig. 4-6), Brandle teaches storing the generated results data (results) to a space service (queue 116) in the distributed computing environment; and the client accessing the stored results data from the space service (application retrieves results from the queue, col. 7, lines 33-36, 64-66; col. 10, lines 11-13).

4. Brandle do not explicitly teach providing an advertisement for the stored data to the client, wherein the advertisement comprises information to enable access by the client to the stored data, the client accessing the stored results data from the space service in accordance with the information in the provided advertisement. However, Monday teaches the advertisement comprises information to enable access by the client to the stored data, the client accessing the stored results data from the space service in accordance with the information in the provided advertisement (a markup language for accessing data in a database. The markup language is preferably defined in extensible markup language (XML) by creating suitable document type definition (DTDs0, which define the grammar for accessing data in the database using the markup language, col 1, ln 50-55, As new data types are added to the database, corresponding document type definitions (DTDs) may be dynamically generated, allowing a user to access new kinds of data in a database, col 1, ln 59-64, allow a client to access data in a database, a DTD... When a new data type is added to the database, a DTDs can be statically generated and added to the list of DTDs, col 9, ln 52-62).

5. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Brandle to incorporate the features of the advertisement

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comprises information to enable access by the client to the stored data, the client accessing the stored results data from the space service in accordance with the information in the provided advertisement because this allows a user to easily access data in database without knowing a specialized database query language.

6. As to **claim 2**, Brandle teaches the service performs the function on behalf of the client asynchronously to processing on the client (asynchronous mode). Col. 9, line 31 -col. 10, line 18.

7. As to **claim 7**, Brandle teaches the service comprises one or more computer programming language methods executable within the service (service procedures 126), wherein said performing a function comprises executing a computer programming language method in accordance with the information representing the computer programming language method call included in the message (procedure and parameters). Col. 8, line 57 - col. 9, line 19.

8. As to **claim 8**, note discussion of claim 7 and Brandle further teaches the information representing the computer programming language method call includes an identifier of the method call (procedure/call identifier), and wherein said performing a function comprises: regenerating the method call in accordance with the identifier of the method call included in the information representing the method call (extract cal identifier and parameters and invokes, col. 9, lines 1-16); and executing a computer programming language method in accordance with the regenerated method call (execute service procedures 126, step 172).

9. As to **claim 9**, Brandle teaches the information representing the computer programming language method call further includes one or more parameter values of the method call (parameter block 58), and providing the one or more parameter values from the information

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representing as parameter values of the method call (mapper extracts data/parameters). Col. 9, lines 9-16.

10. As to claim 10, Brandle teaches a service method gate (remote muter application 118, data mapper 120 and service director 122) configured to provide an interface to computer programming language methods of the service by receiving messages (transferred) and invoking methods specified by the messages (steps 166, 168, 170, 172), and wherein said regenerating the method call is performed by the service method gate. Col. 8, line 57 - col. 9, line 19.

11. As to claim 11, Brandle teaches performing a function generates results data (results), the service providing the generated results data to the client (steps 174 -190).

12. As to claim 17, note discussions of claim 1 for functions of generate, send and perform and claim 3 for receive. In Brandle, the first two functions are provided in a client node and the last two in a service node. It would have been obvious to implement the client functions by a client device and the service functions by a service device.

13. As to claims 18, 21, 22, 23-26, they are apparatus claims of claims 2, 4, 5, 6, 7-9, 11; therefore, they are rejected for the same reasons as claims 2, 4, 5, 6, 7-9, 11 above.

14. As to claim 33, it is an apparatus claim of claims 1 and 3; therefore, it is rejected for the same reasons as claims 1 and 3 above. In additional, Brandle teaches Note the equivalence and access/receiving. It would have been obvious to implement the client and the method gate functions, co-located in a client node, in a device.

15. As to claim 34, it is an apparatus claim of claim 2; therefore, it is rejected for the same reason as claim 2 above.

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16. As to claim 51, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In addition, it would have been obvious to embody the method steps in a carrier medium for the purpose of portability.

17. As to claims 52, 56, 57, they are apparatus claims of claims 2, 3, 8, 9; therefore, they are rejected for the same reasons as claims 2, 3, 8, 9 above.

18. Claims 35, 36, 54, 55, 28, 73-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al (U S Pat. 5,218,699) in view of Monday (6,480,860 B1), as applied to claim 1 above, and further in view of Anderson et al (Professional XML, pages 497-511, 542-543).

19. As to claims 73-76, Brandle and Monday do not teach the computer programming language is Java, nor Java method call, Java method implemented on, Java method on. However, Anderson teaches a method for remotely invoking functions in a distributed computing environment (XML-RPC), wherein the computer programming language is Java, and including Java method call (Java client), Java method implemented on the service (Java XML-RPC server, page 511, fig.). See page 508 section XML-RPC to page 511, last para.

20. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine teaching of Brandle, Monday and Anderson because Anderson's the computer programming language is Java, nor Java method call, Java method implemented on, Java method on would improve the teaching of Brandle and Roth's system allowing the

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communications between programs running on disparate operating environments heterogeneous systems.

21. As to **claim 28**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above.

22. As to **claims 35, 36, 54, 55**, Java is a well-known distributed object-oriented execution environment with remote procedure call capability, as taught by Anderson (page 511, fig.). In view of the combined teaching of Brandle and Anderson, running a client application/process in a virtual machine I JVM would have been obvious.

23. Claims **15, 31, 79** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al (U S Pat. 5,218,699) in view of, in view of Monday (6,480,860 B1), as applied to claim 1 above, and further in view of Cuomo (U S Pat. 6,185,614).

24. As to **claim 15**, Brandle and Monday do not teach using Uniform Resource Identifiers (URLs) to access data/resources. However, Cuomo teaches using Uniform Resource Identifiers (URLs) to access data/resources (col. 4, lines 4-36).

25. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Brandle, Monday and Cuomo because Cuomo's teaches using Uniform Resource Identifiers (URLs) to access data/resources would improve the efficiency of Brandle and Roth's systems by providing the capability of returning dynamically generated results.

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26. As to **claims 31**, Cuomo teaches using Uniform Resource Identifiers (URLs) to access data/resources (col. 4, lines 4-36).

31. As to **claim 79**, it is an apparatus claim of claims 2, 4; therefore, it is rejected for the same reason as claims 2, 4, above.

Allowable Subject Matter

35. Claims 4-6, 13, 14, 20, 29, 30, 59, 77, 78, 78, 80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

May 3, 2007


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER